

Patent claims

1 1. A hard metal or cermet cutting material for the
2 machining of chromium-alloyed steel workpieces, with a carbide,
3 nitride and/or carbonitride containing hard material phase and a
4 binder phase of iron, cobalt and nickel,
5 characterized in that,
6 the binder phase contains 10 mass % to 75 mass % Co, 10
7 mass % to 75 mass % Ni, 5 mass % to 30 mass % Cr, > 20 mass % to 60
8 mass % Fe, whereby the sum of the Co, Ni, Cr and Fe does not exceed
9 100 mass %.

1 2. The hard metal or cermet cutting material according
2 to claim 1, characterized in that, the binder phase additionally
3 contains respectively each up to 5 mass % V, Mo and/or Al, up to
4 the maximum solubility limit of Ti, W, Ta/Nb and/or up to 15 mass %
5 Mn.

1 3. The hard metal or cermet cutting material according
2 to claims 1 to 2, characterized in that, the binder contains O, N
3 and/or B up to the maximum solubility limits thereof.

1 4. The hard metal or cermet cutting material according
2 to claims 1 to 3, characterized in that, the C content in the

3 cutting material is so adjusted that no η -phase and C-porosity is
4 present.

1 5. The hard metal or cermet cutting material according
2 to claims 1 to 4, characterized in that, the binder phase does not
3 contain any hexagonal component.

1 6. The use of the hard metal or cermet cutting material
2 according to one of the claims 1 to 5 for the chip removal
3 machining of steel workpieces, preferably of workpieces of
4 chromium-containing alloys.

1 7. The use of a cutting material according to one of
2 claims 1 to 5 for the chip removal machining of chromium-containing
3 metal workpieces, characterized in that, the chromium content in
4 the binder phase of the cutting tool material is not within the
5 chromium proportion in the steel alloy of the workpiece.